## PROJECT INSPECTOR & ASSISTANT INSPECTOR DUTIES AND PERFORMANCE

**IR A-8** 

References:

California Code of Regulations (CCR), Title 24
Part 1: California Administrative Code
Sections 4-211, 4-333, 4-334, 4-336, 4-337, 4-342, & 4-343
California Education Code. Sections 17309 & 81141

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Discipline: Structural

This Interpretation of Regulations (IR) is intended for use by the Division of the State Architect (DSA) staff, and as a resource for design professionals, to promote more uniform statewide criteria for plan review and construction inspection of projects within the jurisdiction of DSA which includes State of California public elementary and secondary schools (grades K-12), community colleges and state-owned or state-leased essential services buildings. This IR indicates an acceptable method for achieving compliance with applicable codes and regulations, although other methods proposed by design professionals may be considered by DSA.

This IR is reviewed on a regular basis and is subject to revision at any time. Please check the DSA web site for currently effective IRs. Only IRs listed in the document at <a href="http://www.dgs.ca.gov/dsa/Resources/IRManual.aspx">http://www.dgs.ca.gov/dsa/Resources/IRManual.aspx</a> at the time of plan submittal to DSA are considered applicable.

**Purpose:** This Interpretation of Regulations (IR) provides clarification of the duties of school construction project inspectors and assistant inspectors as required by the California Building Standards Administrative Code (Title 24, Part 1). The IR also describes the performance rating process utilized by DSA to evaluate inspectors for approval on future school construction projects.

#### Section 1 - REQUIRED DUTIES of the PROJECT INSPECTOR

The project inspector must perform specific duties in accordance with Title 24, Part 1 (Sections 4-333, and 4-342). The project inspector acts under the direction of the design professional in general responsible charge and is subject to supervision by DSA. The project inspector does not have the authority under Title 24 to direct the contractor in the execution of the work, nor to stop the work of construction.

The project inspector's responsibilities include:

- A thorough understanding of all requirements of the construction documents.
- Inspection of all portions of the construction for compliance with the requirements of the DSA approved construction documents.
- Identification, documentation, and reporting of deviations in the construction from the requirements of the DSA approved construction documents.
- Submittal of verified reports (Form <u>DSA-6</u>). At the conclusion of the project any outstanding deviations must be noted on the Form DSA-6.
- For projects approved under the 2007 CBC the project inspector is responsible for providing "special inspection" of aspects of the construction allocated to the project inspector on the "Tests and Inspections List" (Form DSA-103). The project inspector is also responsible for providing "special inspection" of aspects of construction requiring special inspection by Title 24, Part 2, Sections 1707A.3 through 1707A.9. Any changes to the special/project inspector responsibilities shown on the DSA approved plans and specifications (including Form DSA-103) must be approved by change order, or field change document (see IR A-6), prior to proceeding with the related construction work.

The project inspector is prohibited from performing functions associated with actual construction work such as:

- Performing construction work,
- Ordering or purchasing materials,
- Directing the work of the contractor, subcontractor(s), volunteer labor or any entity performing construction work,
- Coordinating or scheduling the construction work,
- Performing "quality control" of construction; quality control is the responsibility of the contractor, quality assurance is the responsibility of the inspector.

The project inspector may perform duties for the school district that are not code-prescribed as long as such duties do not interfere with inspection duties. It is the inspector's responsibility to report all ancillary duties to DSA, the project architect and the structural engineer. The inspector shall also report unforeseen time demands that are impacting, or will impact, his or her ability to perform his code-prescribed duties.

DSA may approve a project inspector when – in the opinion of DSA – these ancillary duties should not create a conflict of interest. DSA may withhold approval of a project inspector or withdraw approval at any time if the appearance of a conflict arises.

## Seven Categories of Code-Prescribed Duties of the Project Inspector

The code-prescribed duties of the project inspector have been organized into the following seven categories. The inspector's performance in each of these categories serves as the basis for the DSA field engineer's rating of the inspector (see Section 2 on page 5 of this IR).

#### 1. Inspector's Job File

The inspector must maintain approved (DSA-stamped and initialed) construction documents at the job-site in an organized, readily accessible manner. The inspector must also maintain any other construction documents or directives received from the responsible design professional(s).

The following list of documents and codes must be maintained at the job-site, and available for review by DSA representatives, during construction:

- Building Codes: Title 24, Part 1 (Administrative Code); Title 24, Part 2, Volumes 1 and 2 (Building Code); Title 24, Part 3 (Electrical Code); Title 24, Part 4 (Mechanical Code); Title 24, Part 5 (Plumbing Code) and Title 24, Part 6 (Energy Code). The code edition must be as referenced on the DSA approved plans and specifications. For projects approved under the 2001 CBC, Volume 3 of Title 24, Part 2 is also required.
- Applicable referenced standards: ASCE 7-05, ACI 318-05, ACI 530-05 & 530.1-05, AISC 360 & 341, ANSI/NF&PA NDS-2005, various ASTM standards, etc.
- DSA approved plans and specifications.
- DSA approved addenda.
- DSA approved deferred approval documents.
- DSA approved Field Change Documents.
- DSA approved change orders.
- A copy of shop drawings, samples, and approved submittals.

- Contractor's "Statement of Responsibility" from each contractor per Section 1706A of Title 24, Part 2 (not required for projects under the 2001 CBC).
- Labels, materials certificates, mill certificates, concrete batch tickets, etc. for construction materials or assemblies as required by the DSA approved documents.
- Test and Inspection List (Form DSA-103). Form DSA-103 may be incorporated into drawings or specifications.
- Test and special inspection reports.
- Deviation reports and deviation logs.
- Daily inspection reports.
- Semi-monthly reports.
- Any other documents or directives received from the responsible design professional(s).

#### 2. Inspector's Comprehension of the Construction Documents

The inspector must study and fully comprehend the requirements of the construction documents in order to provide competent inspection of the work. It is necessary for the inspector to possess a thorough understanding of the requirements of the plans and specifications *before* that portion of the work is performed.

The inspector must:

- Consult the responsible design professional(s) to resolve any uncertainties in the inspector's comprehension of the plans and specifications prior to construction of that portion of the work.
- Review requirements for each phase of the construction with the contractor prior to commencing that phase of the work. Good communications will prevent construction errors from occurring.
- Readily identify non-compliant work as the construction progresses, to facilitate prompt corrective action.
- Verify code-compliant implementation of the materials testing and special inspection program.

Title 24, Part 1, Section 4-343, specifies that the contractor must direct inquiries regarding document interpretation (including Requests for Information or RFI's) to the design professional in general responsible charge, through the inspector. This code provision requires the contractor to involve the inspector in the interpretation and clarification of the construction documents.

## 3. Continuous Inspection of the Work

Continuous inspection means complete and timely inspection of every part of the work. Title 24, Part 1 requires prompt inspection of the work as it progresses. Title 24, Part 1 also requires that prompt verbal notification be made to the contractor of any deviation, so that the deviation can be immediately corrected.

Work such as concrete work or masonry work which can be inspected only as it is placed requires the <u>constant</u> presence of the inspector. Certain types of work which can be completely inspected after the work is installed may be carried out while the inspector is not present, provided that the inspector promptly identifies and reports all deviations.

The project inspector must have personal knowledge of the construction, obtained through the project inspector's own physical inspection of the work in all stages of its progress. When special inspectors or approved assistant inspectors are used on a project, the project inspector's personal knowledge may include that knowledge obtained from these individuals. The project inspector must keep a log of time spent on site.

#### 4. Records of Inspections

The inspector must maintain detailed records of all inspections. The inspector's records must provide a comprehensive and timely documentation of the inspected work, promptly identifying all compliant and non-compliant construction. These records must be readily accessible and maintained in an organized manner. The following is a list of the inspection records that must be maintained at the job-site:

- A systematic record of all materials and assemblies delivered to the project site.
- A systematic record of the inspection of all work required by the construction documents. Marking properly completed work on a set of construction documents is a recommended method to verify that the requirements of the plans and specifications have been met. The inspector must also record the resolution of reported deviations.
- Construction Procedure Records per Title 24, Part 1, Section 4-342(6), including but not limited to concrete placement operations, welding operations, pile penetration blow counts, and other records specified on the approved construction documents.
- Log of project inspector's and assistant inspector's time spent on-site. DSA may require verification from the inspector of time spent at the job-site during all phases of the work.

#### 5. Communications Required of the Inspector

The inspector must, during the course of construction, provide specific code-prescribed notices and reports to the responsible design professional(s), DSA, the school district, and the contractor. The inspector must maintain records of all communications. These records must be readily accessible and maintained in an organized manner. The date and recipients of all communications must be clearly indicated.

The inspector is required to provide the following communications during the course of a construction project:

- Notifications to DSA as required by Title 24, Part 1, Section 4-342 (b) 5; including start of work, minimum 48 hours prior to completion of foundation trenches, minimum 48 hours prior to first concrete placement, and when work is suspended for more than two weeks. Notifications shall be made by telephone or e-mail.
- Inspector's Semi-Monthly Reports (see Title 24, Part 1, Section 4-337). The project inspector must make semi-monthly reports (on the 1st and 15th of every month) on the progress of construction. The semi-monthly report must be submitted to the design professional in general responsible charge and the structural engineer; a copy must be sent to DSA and the school district.

A semi-monthly report must be prepared in accordance with DSA's *Guidelines for Format of Project Inspector's Semi-Monthly Report for School Construction Projects*. The guideline is available on-line at <a href="www.dsa.dgs.ca.gov">www.dsa.dgs.ca.gov</a> (click on "Publications" and scroll down to "Inspector Program Publications"), or at DSA regional offices.

**Note for single-story relocatable building projects:** At the discretion of the responsible design professional(s), the inspector may submit the DSA standard form DSA-121: <u>Checklist for Site Inspection of Relocatable Buildings</u> in lieu of semi-monthly reports. The checklist is to be submitted at the completion of the work. The checklist is available on-line at <u>www.dsa.dgs.ca.gov</u> (click on Forms), or at DSA regional offices.

- **Deviation Notices** (see Title 24, Part 1, Section 4-342 (b) 7). When the inspector identifies deviations from the DSA-approved plans and specifications, the inspector must verbally notify the contractor. If the deviation is not immediately corrected, the inspector is required to promptly issue a written notice of deviation to the contractor, with a copy sent to the responsible design professional(s), and DSA. The status and resolution of all deviations must be documented on semi-monthly reports.
- Record of Communications to the Responsible Design Professional(s) All uncertainties in the inspector's or contractor's comprehension of the documents must be reported in writing to the responsible design professional(s).
- **Verified Reports** (Form DSA-6) (refer to Title 24, Part 1, Section 4-336). The project inspector shall submit verified reports directly to DSA (with copies to the responsible design professional(s) and the school district) within seven days of any of the following:
- 1) Work on the project is suspended for a period of more than one month.
- 2) The services of the inspector are terminated for any reason.
- 3) DSA requests a verified report.
- 4) At the time of occupancy of any building involved in a project (including alterations work).
- 5) The entire project is complete.

The verified reports shall clearly describe all non-compliant work including work done in accordance with change orders that are pending DSA approval.

# 6. Inspector's Monitoring of the Materials Testing & Special Inspection Program

The inspector is responsible, under the direction of the design professional in general responsible charge, for monitoring the work of any special inspectors and materials testing laboratories to ensure that all materials testing and special inspections required for the project are satisfactorily completed in accordance with the DSA approved documents.

The project inspector must monitor the following aspects of the Materials Testing & Special Inspection Program:

- When DSA approval for special inspectors is required, the project inspector must identify and report any special inspectors on the job-site that are not DSA-approved.
- Verify that the materials testing laboratory is included on the <u>"List of DSA Accepted Testing Laboratories"</u> on the DSA website and that all sampling and testing is performed by the testing laboratory.
- The project inspector must verify that the materials testing lab and special inspectors have received sufficient advance notification to perform the required material sampling or special inspection.

- The project inspector is responsible for verifying that all required material sampling and special inspections have been performed. The project inspector is also responsible to observe any special inspector's on-site presence and performance of duties, the special inspector's documentation of complying and non-complying work, and issuance of deviation notices.
- The project inspector is responsible for reviewing all materials test and special inspection reports. The project inspector must report the status and resolution of deviations reported by any materials testing lab or special inspector on semi-monthly reports.

## 7. Monitoring of Assistant Inspector(s)

The project inspector must provide technical guidance to assistant inspector(s) and must verify the assistant inspector's comprehension of the construction documents. The project inspector must also monitor the assistant inspector's performance, verifying that the assistant inspector is properly checking the construction, recording inspections, and performing other assigned duties.

The project inspector must ensure that any assistant inspector is performing the duties indicated on the assistant inspector's approved Form <u>DSA-5A</u>. See <u>IR A-12</u>.

The project inspector must provide continuous on site supervision of all assistant inspectors.

#### Section 2 - DSA's RATING of the INSPECTOR'S PERFORMANCE

DSA administrative policy on rating inspector's performance is undergoing review and has been temporarily removed from this IR.